

US EPA ARCHIVE DOCUMENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
FACT SHEET

Permittee and Mailing Address: Guam Power Authority
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Permitted Facility and Address: Guam Power Authority Piti Bulk Fuel Storage
Terminal
Piti, Guam 96925

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NPDES Permit No.: GU0020354

PART I - STATUS OF PERMIT

Peterra, Inc. (hereinafter, "Peterra" or the "permittee") has applied for renewal of its National Pollutant Discharge Elimination System (NPDES) permit pursuant to U.S. Environmental Protection Agency (EPA) regulations set forth in Title 40, Code of Federal Regulations (CFR), Part 122.21, for the discharge of effluent from tank bottom water draws and storm water runoff from its bulk petroleum storage terminal located South of the Piti Channel just west of former Navy power Plant, in the Municipality of Piti, Guam. The discharge occurs via overland flow from three separate outfalls, from which it may then flow to the Piti Channel which then discharges to Apra Harbor, which in turn connects to the Philippine Sea and the Pacific Ocean. These regulations require any person who discharges or proposes to discharge pollutants from a point source into waters of the U.S. to submit a complete application for a NPDES permit, including renewal of a permit. Because the Territory of Guam (Guam) has not been delegated primary regulatory responsibility for administering the NPDES program, EPA is issuing a NPDES permit which incorporates both federal CWA and Guam water quality requirements. In accordance with 40 CFR 122.21(e), on December 14, 2005 the permittee submitted a complete application for renewal of its NPDES permit. The permittee is currently authorized to discharge to the Piti Channel River under the NPDES Permit No. GU0020354, which became effective on May 9, 2001 and expired on May 9, 2006. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

PART II – DESCRIPTION OF FACILITY

The facility is a bulk petroleum storage terminal which is located northeast of the intersection of Route 1 and Route 18 in Piti, Guam. The Facility is owned by Guam Power Authority and provides storage for fuel oil for power plants on its northern boundary. The facility utilizes several tanks to store and distribute fuels for consumption by the Cabras #1-#4, Enron, and Tanguisson power plants. Fuel is brought into and out of the terminal via dedicated pipelines.

The tanks are provided with unpaved, lined, containment berms designed to collect storm water or any petroleum release from the tanks. There are three containment areas each with an outfall respectively numbered 001, 002, and 003. A schematic diagram provided by the applicant indicates that the discharge capacity at each outfall is 3.1 MGD at 001, 2.3 MGD at outfall 002 and 0.01 MGD at outfall 003. However, the application also states that average discharge from outfall 001, 002 and 003 is 0.1 MGD, 0.1 MGD, and 0.01 MGD. This discrepancy is assumed to be due to the fact that the larger figures represent the maximum capacity of the storage areas and smaller figures represent the actual flow, averaged on a daily basis. The facility does not have a flow measurement device, and hence figures provided are assumed to be estimates. The renewed permit requires the installation of an appropriate flow measurement device at each of the outfalls.

The applicant also indicated in their application that tank bottom draws are sent to an oil/water separator and the water is then sent to an evaporation pond in the northwest corner of the bermed area for outfall 001. However a recent inspection indicated that due to problems with operation of the oil/water separator the permittee is transporting all tank bottom water draws to the nearby Guam Power Authority power plant for treatment and disposal. The permit prohibits discharge from outfall 001 unless the oil/water separator is operating properly.

PART III – REASONABLE POTENTIAL

In order to establish reasonable potential, operations that result in discharges were analyzed, and monitoring data were reviewed.

A. Tank Bottom Water Draws and Storm Water Runoff

Water from condensation contaminates the fuel and must be drawn off the bottom of the storage tanks. Operators of tank farms in California have indicated that discharges from tank bottom water are potentially significant sources of pollutants.

Additionally, storm water runoff can become contaminated by coming in contact with spills, leaks, improperly stored materials and wastes, and an inadequately cleaned facility.

Benzene, toluene, ethylbenzene and xylene are the more volatile components of petroleum hydrocarbons. These pollutants are usually present in petroleum products, but are most associated with petroleum products with lighter ranges of hydrocarbons, such as gasoline. Because discharges come into contact with petroleum products, and because oil-water separators are the only means of treatment, it is reasonable to expect that these pollutants may be discharged to

surface waters. Additionally the discharger is required to conduct a priority pollutant scan to assess if there are any other toxic pollutants potentially present in concentrations sufficient to be detected and to be of concern in the effluent. If such additional pollutants are detected then the permit may be modified to include additional monitoring. If such additional pollutants are detected and determined to have reasonable potential for exceedence then the permit may be modified to include effluent limits for such pollutants.

Lead is being phased out as an additive in gasoline, and leaded gasoline has been banned for on-road vehicles, it may still be used for off-road use, such as marine engines, or in certain aviation fuels. Additionally, unleaded gasoline also contains low levels of lead. Therefore, permittee shall sample for lead either separately within 90 days of permit issuance or as part of the Priority Pollutants Scan that is also required as part of this permit. If the results show that the limit was not exceeded and no there is reasonable potential for the limit to be exceeded, then no further sampling is required for the duration of this permit. If however the sampling data shows that the lead level was exceeded or that there is reasonable potential for the level to be exceeded, the permit may be re-opened and a limit for lead imposed.

B. Monitoring Data and Inspection Report Results

The latest DMR data reviewed indicate no permit limit or monitoring limits have been exceeded, during the previous permit cycle. However several other inconsistencies and potential violations were identified. The permittee does not have any flow monitoring devices and the DMRs either have no flow data or the data seems to be based on estimated flow. No Pollution Prevention Plan was developed and submitted during the previous permit cycle as required by the permit.

PART IV – BASIS FOR EFFLUENT LIMITATIONS

As federal guidelines have not been promulgated for bulk oil storage and transfer facilities, limitations were established using:

1. Guam water quality standards, revised and approved by Guam on June 18, 2002;
2. National Recommended Water Quality Criteria, December 2004; and
3. Best Professional Judgement

The Guam water quality standards categorize the Piti Channel as S-3 (LOW). S-3 waters are defined as being surface water that “is primarily used for commercial, agricultural,

and industrial activities. Aesthetic enjoyment and compatible recreation are acceptable in this zone, as well as maintenance of aquatic life.”

Oil and Grease

The permit limit for oil and grease is based on Best Professional Judgment. The limit of 15 mg/L has been carried over from the previous permit. This limit is consistent with other bulk storage terminal permits. Narrative water quality objectives for oil and grease are also included in the permit.

Lead

The Guam water quality standards for Lead indicate a value of 0.082 mg/L acute and 0.0032 mg/L chronic. The permit limit in this permit is based on the more stringent of these values, i.e. the 0.0032 mg/L.

Benzene

The Guam water quality standards for Benzene indicate a value of 0.0012 mg/L to protect human health from consumption of water and aquatic life . There are no limits in the Guam water quality standards for the protection of aquatic life itself. Monitoring limits without permit limits have been included in the permit based on this value.

Ethylbenzene

The Guam water quality standards for Ethylbenzene indicate a value of 3.1 mg/L to protect human health from consumption of water and aquatic life. There are no limits in the Guam water quality standards for the protection of aquatic life itself. Monitoring limits without permit limits have been included in the permit based on this value.

Toluene

The Guam water quality standards for Ethylbenzene indicate a value of 6.8 mg/L to protect human health from consumption of water and aquatic life. There are no limits in the Guam water quality standards for the protection of aquatic life itself. Monitoring limits without permit limits have been included in the permit based on this value.

Xylene

There are no limits in either the Guam water quality standards or in the National Recommended water quality criteria for Xylene. Therefore, the permit simply requires sampling and monitoring for this parameter, without a specific permit action level.

pH

The Guam water quality standard states that for Category S-3 waters, pH shall remain within the range of 6.5 to 8.5 pH units.

PART V – PRIORITY POLLUTANTS SCAN

In accordance with federal regulations, the permittee shall conduct a Priority Toxic Pollutants scan during the first effluent discharge event after the issuance of the permit to ensure that the discharge does not contain toxic pollutants in concentrations that may cause violation of water quality standards. If the scan results indicate that a limit has actually been exceeded or there is a reasonable potential for such a limit to be exceeded, this permit may be reopened to include appropriate numeric limits.

PART VI - POLLUTION PREVENTION PLAN

The permit contains requirements for an extensive pollution prevention plan (PPP). The PPP is required to include: establishment of a pollution prevention committee; source identification; source control Best Management Practices (BMPs); and treatment control BMPs.

PART VII - GUAM REVIEW OF PERMIT

Permits issued by EPA require State review and certification under Section 401 of the Clean Water Act (CWA). Such certification ensures that the permit will comply, not only with applicable Federal standards under the CWA, but also with State water quality standards. Under CWA Section 401(a)(1), EPA may not issue a permit until a certification is granted or waived. Guam Environmental Protection Agency (GEPA) granted Section 401 Certification for this permit on October 18, 2010. However GEPA included conditions that the permittee had to fulfill in order for its certification to be valid. These conditions are incorporated by reference into the Permit and the permittee shall adhere to these requirements as well as all other requirements included in the Permit. GEPA's Section 401 certification shall be suspended and/or revoked if these permit conditions are not followed or when significant water quality degradation occurs as a result of the permitted activity as determined by GEPA.

PART VIII – OTHER CONSIDERATIONS UNDER FEDERAL LAWS

A. Endangered Species Act

The discharge is to land which may then sheet flow into a channel and then eventually flow into Apra Harbor and therefore the US Fish and Wildlife Service is the federal agency with jurisdiction. EPA obtained a list of threatened and endangered species from the US Fish and Wildlife Service. The list includes twelve animal species and one plant species as follows: Little Marianas Fruit Bat (*Pteropus tokudae*), Marianas Fruit Bat or Marianas Flying Fox (*Pteropus marianus marianus*), Mariana Crow (*Corvus kubaryi*), Guam Micronesian Moorhen (*Gallinula chloropus guam*), Guam Rail (*Rallus owstoni*), Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricate*),

Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Mariana Gray Swiftlet (*Aerodramus vanikorensis bartschi*), Bridled White-eye (*Zosterops conspicillatus conspicillatus*), and the Hyun Lagu (*Serianthes nelsonii*).

The permit is a reissuance of a permit for an existing facility. No new construction, new pipelines, land, habitat, or hydrology alterations are associated with the permit reissuance. The effluent limitations in this reissued permit are all as stringent as or more stringent than those in the previous permit. The effluent limits in the permit will not result in acute or chronic exposures to contaminants that would affect federally listed threatened and endangered species, or impair any designated critical habitat. The effluent limits and monitoring requirements in the permit are designed to be fully protective of the beneficial uses of the receiving waters.

Thus, EPA believes that this permit reissuance will not affect any federally listed threatened and endangered species under the NOAA National Marine Fisheries or US Fish and Wildlife Services jurisdictions that may be present in the area of discharge. If, in the future, EPA obtains information or is provided information that indicates that there could be adverse impacts to federally listed species, EPA will contact the appropriate agency or agencies and initiate consultation, to ensure that such impacts are minimized or mitigated.

B. Impact to Coastal Zones

The Coastal Zone Management Act (CZMA) requires that Federal activities and licenses, including Federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR 930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification. At this time, EPA has not received a consistency certification from the Guam Department of Commerce for the proposed discharge. At the time the certification is received, EPA will review the certification and will make any necessary modification to the draft permit to ensure compliance with the Guam Coastal Management Plan.

C. Impact to Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the National Marine Fisheries Service, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires Federal agencies to make a determination on Federal actions that may adversely impact Essential Fish Habitat (EFH) in marine environments. Even though the discharge is to land, there may be flow via overland runoff to the Piti Channel, which is coral reef EFH. However, given that this is a permit renewal and the discharge is not a new one, and that the appropriate effluent limits have been included in the permit to protect designated

beneficial uses, EPA has determined that there will be no adverse effect to EFH from this action.

D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to federal requirements of NHPA and 36 CFR 800.3(a)(1), EPA has determined that the draft permit does not have the potential to affect any historic or cultural properties.